

Container and its use in packaging, for example packaging for remedies

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DESCRIPTION

The invention relates to a container according to the precharacterizing clause of Claim 1 and packaging, for example packaging for remedies, comprising a plurality of such containers according to the precharacterizing clause of Claim 10.

Containers and packagings of the type according to the invention are used, for example, in clinical trials of drugs or remedies. In such clinical trials, a large number of test subjects take the drugs to be tested, orally, parenterally or topically, over a predetermined time span and according to a special administration plan, and the reactions of the test subjects and the effects of the drugs are recorded and statistically evaluated.

In addition to the generally known blister packs which are also used for the above-mentioned purpose, there are also other pharmaceutical dosage forms, such as, for example, vials, syringes and ampoules, which contain, for example, liquid drugs and drugs to be dissolved in a liquid and to be administered, for example, orally or by injection. Such dosage forms, too, are increasingly being used for clinical trials, in these applications the drugs to be tested already being present, together with the control and reference preparations likewise required for statistical evaluation, in sealed containers for provision of packaging according to the invention.

Both the quality assurance and the security of the data relating to content and use of the packed remedy are becoming increasingly important in medicine. This applies very particularly to drugs or remedies whose pharmaceutical effects are to be established with certainty by means of numerical statistical investigations.

Statistically significant evaluations of the clinical trials moreover require that various preparations and/or formulations thereof be used in, for example, a predetermined sequence within a test series and that these have standard appearance regardless of their initial packaging, their colour, their initial labelling or the like.

It is an object of the invention to propose, with the use of vials, ampoules and the like, a novel container which takes account of the requirements cited last.

This object is achieved by a container having the features of Claim 1 and packaging consisting of a plurality of containers having the features of Claim 10.

Advantageous embodiments of the invention form the subject of the claims dependent on Patent Claim 1.

An embodiment of the invention is explained in more detail below with reference to the drawing. In the drawing,

Figure 1 shows a container drawn partly in section and partly as a view,

Figure 2 shows a view of a covering formed from plastic, in the unfolded state,

Figure 2a shows a view in the direction of arrow IIA of Figure 2

5 Figure 3 shows a view of the container with mounted plastic covering,

Figure 3a shows a view in the direction of arrow IIIa of Figure 3,

10 Figure 4 shows, by way of example, five containers according to Figure 1, intended for medical packaging, and

15 Figure 5 shows the five containers of Figure 4 in the dosage form as used in packaging of the type according to the invention.

The container shown in Figures 1 and 3 to 5 and denoted as a whole by 1, also referred to below as a vial, has a transparent, for example glass-clear, glass or plastic wall 2 with a base 3 and a plug 5 which fits detachably or nondetachably in the bottleneck 4 and has an associated lid 6. The lid 6 is formed and dimensioned in such a way that, in the fastened state, it projects over the edge of the filling orifice, or over the bottleneck 4 in the examples present here.

25 According to the invention, it is intended to surround the vial 1 by a covering 8 arranged on the outside of the container wall 2 and making the pharmaceutical formulation 7 contained in the container appear opaque through the transparent container wall 2, so that the appearance of the pharmaceutical formulation, for example whether it is a coloured, pulverulent, lyophilized or granular formulation, is visually undetectable for a user.

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In one embodiment of the invention, the covering 8, as shown in Figure 2, consists of a premoulded plastic jacket which fits tightly against the container wall 2 and is formed, for example, from two parts 8a and 8b intended for enclosing the container 1 and connected to one another along a generating line.

The two parts 8a and 8b each form a neck section 8c and 8d fitting the bottleneck 4, and the covering 8 is, for example, translucent and coloured, milky or cloudy.

The covering 8 consists, for example, of pure plastic, such as, for example, of polyethylene or polyvinyl chloride or of another plastic serving the purpose according to the invention, or of a combination of materials comprising a plastic film with, for example, aluminium or paper, or of a laminated foil.

According to the invention, the covering 8 can be arranged detachably or nondetachably on the container wall 2. If the covering 8 is to be arranged detachably on the container wall 2, it is closed, for example, by means of an adhesive strip preferably enclosing it completely or by means of an adhesive. If, however, the covering 8 is to be fastened nondetachably on the container wall 2, the covering 8 is, for example, adhesively bonded to the wall 2 over the whole surface or part of the surface.

In a further developed embodiment of the invention, at least one outer note or label which can be wrapped around the covering 8 and has information relating to content, administration times and the like can additionally be provided on the covering 8.

A packaging according to the invention, intended for remedies and comprising a plurality of containers 1 (1.1 to 1.5) each containing a pharmaceutical formulation 7 (7.1 to 7.5), is distinguished by the fact that all containers 1.1 to 1.5 are provided with a standard covering 8 of the type described above so that the appearances of the pharmaceutical formulations 7.1 to 7.5 cannot be visually distinguished from one another by a user, which is shown graphically in Figure 5. The coverings 8 may all be translucent and coloured, milky or cloudy.

A substantial advantage of a packaging according to Figure 5 for remedies thus consists in the fact that the different preparations provided inside the packaging have a standard appearance to the user or to the test subject, regardless of the type of their pharmaceutical formulations.

Finally, it should be pointed out here that the example of the invention described with references to Figures 1 to 5 represents only a selection of a plurality of possible embodiments of the invention and can be modified in various respects.

Thus, coverings 8 which are coloured or black or white and nontransparent or translucent in such a way that the appearance of the container wall 2 itself, for example its colour or its initial labelling, is undetectable are proposed, for example, for containers having a nontransparent container wall.

Furthermore, nontransparent coverings 8, for example premoulded coloured, black or white plastic films, can also be used for containers having a transparent container wall.

Furthermore, the containers according to the invention may also be in the form of an ampoule or a syringe instead of a vial. In the context of the invention, however, the container can of course have any desired shape, depending on  
5 the respective application, it being possible for said shape to vary greatly according to field of use, for example in chemistry, medicine or the food industry, as well as in its dimensions.